region in said semiconductor film outside said second insulating film and to form a high resistivity impurity region under a part of said second insulating film which extends beyond said gate electrode;

thinning said part of said second insulating film which extends beyond said gate electrode;

forming a third insulating film comprising silicon nitride over at least said part of said second insulating film which extends beyond said gate electrode; and

forming a fourth insulating film comprising silicon oxide over said third insulating film and over said part of said second insulating film which extends beyond said gate electrode,

wherein said fourth insulating film is formed by using TEOS.

3. A method for forming a semiconductor device comprising:

forming a semiconductor film over a substrate;

forming a first insulating film comprising silicon oxide over said semiconductor film;

forming a gate electrode over said first insulating film;

patterning said first insulating film into a second insulating film comprising silicon oxide;

introducing an impurity into said semiconductor film using said gate electrode and said second insulating film as masks to form a source region and a drain region in said semiconductor film outside said second insulating film and to form an N⁻ region under a part of said second insulating film which extends beyond said gate electrode;

thinning said part of said second insulating film which extends beyond said gate electrode;

forming a third insulating film comprising silicon nitride over at least said part of said second insulating film which extends beyond said gate electrode; and

forming a fourth insulating film comprising silicon oxide over said third insulating film and over said part of said second insulating film which extends beyond said gate electrode,

wherein said fourth insulating film is formed by using TEOS.

4. A method for forming a semiconductor device comprising:

forming a semiconductor film over a substrate;

forming a first insulating film comprising silicon oxide over said semiconductor film;

forming a gate electrode over said first insulating film;

patterning said first insulating film into a second insulating film comprising silicon oxide;

introducing an impurity into said semiconductor film using said gate electrode and said second insulating film as masks to form a source region and a drain region in said semiconductor film outside said second insulating film and to form a high resistivity impurity region under a part of said second insulating film which extends beyond said gate electrode;

thinning said part of said second insulating film which extends beyond said gate electrode;

forming a third insulating film comprising silicon nitride over at least said part of said second insulating film which extends beyond said gate electrode; and

forming a fourth insulating film comprising silicon oxide over said third insulating film and over said part of said second insulating film which extends beyond said gate electrode.

5. A method for forming a semiconductor device comprising:

forming a semiconductor film over a substrate;

forming a first insulating film comprising silicon oxide over said semiconductor film;

forming a gate electrode over said first insulating film;

patterning said first insulating film into a second insulating film comprising silicon oxide;

introducing an impurity into said semiconductor film using said gate electrode and said second insulating film as masks to form a source region and a drain region in said semiconductor film outside said second insulating film and to form an N^- region under a part of said second insulating film which extends beyond said gate

electrode;

thinning said part of said second insulating film which extends beyond said gate electrode;

forming a third insulating film comprising silicon nitride over at least said part of said second insulating film which extends beyond said gate electrode; and

forming a fourth insulating film comprising silicon oxide over said third insulating film and over said part of said second insulating film which extends beyond said gate electrode.

6. A method according to claim 2 further comprising:

forming an anodic oxide film on at least a side of said gate electrode;

etching said first insulating film using said gate electrode and said anodic oxide as masks to form said second insulating film.

7. A method according to claim 3 further comprising:

forming an anodic oxide film on at least a side of said gate electrode;

etching said first insulating film using said gate electrode and said anodic oxide as masks to form said second insulating film.

8. A method according to claim 4 further comprising:

forming an anodic oxide film on at least a side of said gate electrode;

etching said first insulating film using said gate electrode and said anodic oxide as masks to form said second insulating film.

9. A method according to claim 5 further comprising:

forming an anodic oxide film on at least a side of said gate electrode;

etching said first insulating film using said gate electrode and said anodic oxide as masks to form said second insulating film.

10. A method according to claim 2 wherein said third insulating film is formed by plasma CVD.

11. A method according to claim 3 wherein said third insulating film is formed by plasma CVD.

12. A method according to claim 4 wherein said third insulating film is formed by plasma CVD.

13. A method according to claim 5 wherein said third insulating film is formed by plasma CVD.

14. A method according to claim 2 wherein said semiconductor device is incorporated into a display.

15. A method according to claim 3 wherein said semiconductor device is incorporated into a display.

16. A method according to claim 4 wherein said semiconductor device is incorporated into a display.

17. A method according to claim 5 wherein said semiconductor device is incorporated into a display.

18. A method according to claim 2 wherein said semiconductor device is incorporated into a liquid crystal display.

19. A method according to claim 3 wherein said semiconductor device is incorporated into a liquid crystal display.

20. A method according to claim 4 wherein said semiconductor device is incorporated into a liquid crystal display.